REMARKS

No amendments to the claims are presented. Claims 1-42 remain pending. Reconsideration is requested.

Applicants note that the Examiner has indicated that claims 2-14 and 16-42 are objected to as being dependent on a rejected base claim. However, claims 30 and 38 are independent claims. Thus, Applicants submit that claims 30-42 should instead be indicated by the Examiner as allowed. To the extent this is not the case, Applicants request that the final office action be withdrawn and reasons for rejection of claims 30 and 38 be presented.

Claims 1 and 15 were rejected under 35 U.S.C. 102(b) as being anticipated by Yoo. Applicants respectfully traverse.

Applicants previously pointed out that Yoo teaches measuring the data retention time of a DRAM (col. 3, lines 34-35), and then adjusting the self-refresh time period based on the measured data retention time (col. 3, lines 35-43). Yoo's process, however, specifically teaches that the "self-refresh period is made (i.e., set) using a laser fuse in a wafer state or an electrical fuse once in a package state" (col. 3, lines 43-45). Thus, the self-refresh period is fixed by the utilized fuse structure and is based on the previous data retention time measurement.

In distinguishing over Yoo, Applicants asserted that the claim language for "continuously and dynamically measuring the retention time of all the memory cells of the memory; and continuously and dynamically regulating the refresh period of the memory based on the result of this measurement" was not met by the prior art. The reason for this at the very least is because the claim requires that the refresh period be **continuously and dynamically regulated** in accordance with the measured retention times. The Yoo process, conversely, does not regulate

17

the refresh period continuously and dynamically because the refresh period is instead set once (i.e., it is fixed) by blowing a laser fuse. Once the period is set, the Yoo circuitry is NOT CAPABLE of performing any **continuous and dynamic regulation** of the refresh period in the manner claimed.

The Examiner, in the Final Office Action (page 2) points out that Yoo concerns a dynamic random access memory. It is apparently the Examiner's position that the "dynamic" nature of the memory infers or implies a dynamic regulation of the refresh period. This is not the case. Applicants concede that a dynamic random access memory requires periodic refreshing in order to retain stored data. This refreshing operation may be a dynamic operation, as is alleged by the Examiner. However, Applicants are not claiming a dynamic refresh operation. Applicants' claims are, in fact, much more narrow than that because the term "dynamically" is used to modify the phrase "regulating the refresh period." In other words, what is being dynamically regulated (i.e., configured or changed) is the refresh period (which is the length of time between refreshing operations). It is further noted by Applicants that the Examiner's discussion of Yoo wholly fails to address the term "regulating" as used in the claims.

Applicants state that the refresh operation of the DRAM, while arguably being a dynamic operation, do not implicate a dynamic regulation of the refresh period (i.e., configuring or changing the length of time between refresh operations). With specific reference to Yoo, it is clear that the teaching is instead for a one-time setting and fixing (through a blown laser fuse) of the refresh period. No "dynamic regulation" of the refresh period occurs in Yoo. Once set by the fuse, no further regulation of the refresh period occurs, and thus there is no teaching or

18

suggestion in Yoo for the claimed operation for "continuously and dynamically regulating the refresh period of the memory based on the result of this measurement."

Applicants further note that the claim recites "continuously and dynamically measuring the retention time of all the memory cells of the memory" in conjunction with "continuously and dynamically regulating the refresh period." In Yoo, once the measurement of the refresh period is made for purposes for fixing the length of the refresh period through the blowing of the fuse, there is no further need to engage in retention time measurements. Thus, there is no continuous and dynamic measurement of retention time performed in Yoo. Yoo teaches a one time measurement of retention time followed by a one time setting of the refresh period. This teaching is clearly contrary to the combined "continuously and dynamically" performed operations to measure retention time and regulate the refresh period as claimed by Applicants. There is no teaching or suggestion in Yoo for the claimed invention.

Applicants respectfully submit that claim 15 distinguishes over Yoo for at least the same reasons as claim 1.

Withdrawal of the Section 102 rejection and allowance of claims 1 and 15 is accordingly requested.
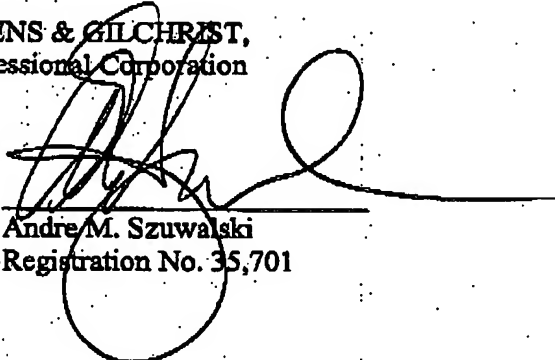
19

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<div align="right">
PATENT APPLICATION
Docket No. 61170-27USPX
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In view of the foregoing, Applicants respectfully submit that the application is in condition for favorable action and allowance.

Respectfully submitted,

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20

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PAGE 21/21 * RCVD AT 8/15/2006 4:44:11 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/30 * DNIS:2738300 * CSID:2148554107 * DURATION (mm-ss):05-22